

IN THE CLAIMS:

1. (withdrawn) A multi lumen catheter comprising an inner tube having a front tip, an outer tube, a tube or lumen for inserting a guide wire, a blood extraction lumen and a blood return lumen which are formed in the outer tube and the inner tube respectively or both in the outer tube, wherein the inner tube is inserted in the outer tube, and allowed to slide relative to the outer tube, and the front tip is jointed to the front end of the outer tube to shut off the communication of the blood extraction lumen and the blood return lumen from the exterior of the catheter.

2. (currently amended) A multi lumen catheter $[[1]]$ comprising:

an outer tube $[[2]]$ having an inner cavity constituting a blood extraction lumen $[[21]]$, and a blood extraction port $[[22]]$ which is open at an end facing the front end side in the axial direction and communicates said blood extraction lumen $[[21]]$ with the exterior of the catheter $[[1]]$;

an inner tube $[[3]]$ having (a) an inner cavity constituting a blood return lumen $[[31]]$ and (b) a blood return port $[[32]]$ for communicating said blood return lumen $[[31]]$ with the exterior of the catheter $[[1]]$; and

a guide wire tube [[4]] for inserting a guide wire and having
(a) an inner cavity constituting a lumen [[41]] for inserting the
guide wire, and (b) a front tip [[42]] of a tapered shape;

wherein said blood extraction lumen is defined by an inner
surface of said outer tube and outer surfaces of said inner tube
and said guide wire tube, and

wherein said inner tube [[3]] and guide wire tube [[4]] are
inserted in said outer tube [[2]], and are allowed to slide
relative to said outer tube [[2]], and the front tip [[42]] slides
with said guide wire tube [[4]] between a first open position and
a second closed position and in said second closed position is
joined to the front end of said outer tube [[2]] to shut off
communication of said blood extraction lumen [[21]] and said blood
return lumen 31 from the exterior of the catheter [[1]].

3. (withdrawn - currently amended) A multi-lumen catheter
[[1]] comprising:

an outer tube [[2]] having an inner cavity constituting a
blood extraction lumen [[21]] and a blood return lumen [[31]], a
blood extraction port [[22]] which is open toward the front end
side in the axial direction and communicates said blood extraction
lumen [[31]] with the exterior of the catheter, and a blood return

port [[32]] which is open toward the front end side in the axial direction on the front side of said blood extraction port [[22]] and communicates said blood return lumen [[31]] with the exterior of the catheter [[1]]; and

an inner tube [[4]] having (a) an inner cavity constituting a lumen [[41]] for inserting a guide wire and (b) a front tip [[42]] of a tapered shape;

wherein said inner tube 4 is inserted in said outer tube [[2]], and is allowed to slide relative to said outer tube [[2]], and the front tip [[42]] slides with said tube [[4]] between a first open position and a second closed position and in said second closed position is joined to the front end of said outer tube [[2]] to shut off the communication of said blood extraction lumen [[21]] and said blood return lumen [[31]] from the exterior of the catheter [[1]].

4. (currently amended) A multi lumen catheter [[1]] comprising:

an outer tube [[2]] having a front end and a base end, an inner cavity constituting a blood extraction lumen [[21]], and a blood extraction port [[22]] which is open at an end facing the

front end side in the axial direction and communicates said blood extraction lumen [[21]] with the exterior of the catheter [[1]];

an inner tube [[3]] having an inner cavity constituting a blood return lumen [[31]] and a blood return port [[32]] for communicating said blood return lumen [[31]] with the exterior of the catheter [[1]]; and

a guide wire tube [[4]] for inserting a guide wire and having (a) an inner cavity constituting a lumen [[41]] for inserting the guide wire, and (b) a front tip [[42]] of a tapered shape;

wherein said blood extraction lumen is defined by an inner surface of said outer tube and outer surfaces of said inner tube and said guide wire tube, and

wherein said inner tube [[3]] is at least partly secured to said guide wire tube [[4]] for inserting the guide wire, said inner tube [[3]] and said guide wire tube [[4]] for inserting the guide wire are inserted in said outer tube [[2]] and are slidable relative to said outer tube [[2]] between a first open position and a second closed position such that, in said first open position, said outer tube [[2]], said inner tube [[3]] and said guide wire tube [[4]] for inserting the guide wire are in such an order that the front tip [[42]], the blood return port [[32]] and the blood extraction port [[22]] are successively arranged in order from the

front end side, and the blood extraction lumen [[21]] with the blood extraction port [[22]] and the blood return lumen [[31]] with the blood return port [[32]] communicate with the exterior of the catheter [[1]], and, in said second closed position, the front tip [[42]] of said guide wire tube [[4]] for inserting the guide wire is joined to the front end of said outer tube [[2]], and the communication of said blood extraction lumen [[21]] and said blood return lumen [[31]] from the exterior of the catheter [[1]] is shut off.

5. (currently amended) The multi lumen catheter according to claim 4, wherein the blood extraction lumen [[21]] in the blood extraction port [[22]] and the blood return lumen [[31]] in the blood return port [[32]] communicate with the exterior of the catheter [[1]] in said first open position when the dialysis is being conducted, and the communication of said blood extraction port [[22]] and said blood return port [[32]] from the exterior of the catheter [[1]] is shut off in said second closed position when the dialysis is not being conducted.

6. (currently amended) The multi lumen catheter [[1]] according to claim 4, wherein said inner tube [[3]] and said guide

wire tube [[4]] for inserting the guide wire are independent from each other.

7. (withdrawn - currently amended) The multi lumen catheter [[1]] according to claim 4, wherein said inner tube [[3]] and said guide wire tube [[4]] for inserting the guide wire share a wall over the full length of said inner tube [[3]].

8. (withdrawn - currently amended) The multi lumen catheter [[1]] according to claim 4, wherein said guide wire tube [[4]] for inserting the guide wire is inserted in said inner tube [[3]].

9. (currently amended) The multi lumen catheter [[1]] according to claim 4, wherein said inner tube [[3]] and said guide wire tube [[4]] for inserting the guide wire are secured to each other at base end portions thereof.

10. (withdrawn - currently amended) The multi lumen catheter [[1]] according to claim 4, wherein said inner tube [[3]] is secured at its front end to the front tip [[42]] of said guide wire tube [[4]] for inserting the guide wire.

11. (currently amended) The multi lumen catheter [[1]] according to claim 4, wherein said blood return port [[22]] in said inner tube [[3]] is open at an end facing the front end side in the axial direction.

12. (withdrawn - currently amended) The multi lumen catheter [[1]] according to claim 4, wherein said blood return port [[22]] in said inner tube [[3]] is a side port opening in the side surface of said inner tube [[3]].

13. (currently amended) The multi lumen catheter according to claim 4, further comprising a locking mechanism for locking the arrangement of the outer tube [[2]], inner tube [[3]] and guide wire tube [[4]] for inserting the guide wire in said first open position.

14. (currently amended) The multi lumen catheter [[1]] according to claim 4, further comprising a locking mechanism for locking the jointing of the front tip [[42]] of said guide wire tube [[4]] for inserting the guide wire and said outer tube [[2]] in said second closed position.

15. (currently amended) The multi lumen catheter according to claim 4, wherein said guide wire tube [[4]] for inserting a guide wire having an inner cavity constituting a lumen [[41]] for inserting the guide wire and a front tip [[42]] of a tapered shape further comprises a communication shut-off mechanism [[44]] capable of shutting off communication between the lumen [[41]] for inserting the guide wire and the exterior of the catheter [[1]].

16. (withdrawn - currently amended) A multi lumen catheter [[1]] according to claim 15, wherein said inner tube [[3]] and said outer tube [[2]] share a wall.

17. (currently amended) A multi lumen catheter [[1]] according to claim 15, wherein said guide wire tube [[4]] for inserting the guide wire is inserted in the blood extraction lumen [[21]] of said outer tube [[2]].

18. (withdrawn - currently amended) A multi lumen catheter [[1]] according to claim 15, wherein said guide wire tube [[4]] for inserting the guide wire is inserted in said inner tube [[3]].

19. (withdrawn - currently amended). A multi lumen catheter
[[1]] according to claim 15, wherein the inner cavity of said outer
tube [[2]] is further provided with a lumen in which can be
inserted said guide wire tube [[4]] for inserting the guide wire.

20. (withdrawn - currently amended) A multi lumen catheter
[[1]] according to claim 15, wherein said blood return port [[21]]
in said inner tube [[3]] is a side port opening in the side surface
of said inner tube [[3]].

21. (currently amended) A multi lumen catheter [[1]] according
to claim 15, wherein said blood return port [[21]] of said inner
tube [[3]] is open at an end facing the front end side in the axial
direction.

22. (currently amended) A multi lumen catheter [[1]] according
to claim 15, wherein the joint between said front tip [[42]] and
said outer tube [[2]] is formed on a plane that meets the long axis
of said multi lumen catheter at right angles.

23. (withdrawn - currently amended) A multi lumen catheter
[[1]] according to claim 15, wherein the joint between said front

tip [[42]] and said outer tube [[2]] is formed on a plane that meets the long axis of said multi lumen catheter at an obtuse angle.

24. (currently amended) A multi lumen catheter [[1]] according to claim 15, further comprising a locking mechanism for holding said outer tube [[2]], said inner tube [[3]] and said guide wire tube [[4]] for inserting the guide wire in said first open position where communication has not been shut off in said blood extraction port [[22]] and in said blood return port [[32]].

25. (currently amended) A multi lumen catheter [[1]] according to claim 15, further comprising a locking mechanism for holding said outer tube [[2]], said inner tube [[3]] and said guide wire tube [[4]] for inserting the guide wire in said second closed position where communication has been shut off in said blood extraction port [[22]] and in said blood return port [[32]].

26. (withdrawn - currently amended) A multi lumen catheter [[1]] comprising:

an outer tube [[2]] having a front end side and a base end side, an inner cavity including a blood extraction lumen [[21]] and

a blood return lumen [[31]], a blood extraction port [[22]] which is open toward the front end side in the axial direction and communicates said blood extraction lumen [[31]] with the exterior of the catheter, and a blood return port [[32]] open toward the front end side in the axial direction on the front end side of said blood extraction port [[22]] and communicates said blood return lumen [[31]] with the exterior of the catheter [[1]]; and

an inner tube [[4]] having (a) an inner cavity constituting a lumen [[41]] for inserting a guide wire and (b) a front tip [[42]] of a tapered shape;

wherein said inner tube [[4]] is inserted in said outer tube [[2]], and is slidable relative to said outer tube [[2]] between a first open position and a second closed position such that, in said first open position, said outer tube [[2]] and said inner tube [[4]] are in such an order that the front tip [[42]], the blood return port [[32]] and the blood extraction port [[22]] are successively arranged in order from the front end side, and the blood extraction lumen [[21]] with the blood extraction port [[22]] and the blood return lumen [[31]] with the blood return port [[32]] communicate with the exterior of the catheter [[1]], and in said second closed position the front tip [[42]] of said inner tube [[4]] is joined to the front end of said outer tube [[2]], the

communication of said blood extraction lumen [[21]] and said blood return lumen [[31]] from the exterior of the catheter [[1]] is shut off.

27. (withdrawn - currently amended) A multi lumen catheter [[1]] according to claim 26, wherein said inner tube [[4]] is inserted in the blood extraction lumen [[31]] of said outer tube [[2]].

28. (withdrawn - currently amended) A multi lumen catheter [[1]] according to claim 26, wherein said inner tube [[4]] is inserted in the blood return lumen [[31]] of said outer tube [[2]].

29. (withdrawn - currently amended) A multi lumen catheter [[1]] according to claim 26, wherein the inner cavity of said outer tube [[2]] is further provided with a lumen for inserting said inner tube [[4]], and said inner tube [[4]] is inserted in said lumen for inserting the inner tube.

30. (withdrawn - currently amended) A multi lumen catheter [[1]] according to claim 26, further comprising a locking mechanism for holding said outer tube [[2]] and said inner tube [[4]] in said

first open position where communication has not been shut off in said blood extraction port [[22]] and in said blood return port [[32]].

31. (withdrawn - currently amended) A multi lumen catheter according to claim 26, further comprising a locking mechanism for holding said outer tube [[2]] and said inner tube [[4]] in said second closed position where communication has been shut off in said blood extraction port [[22]] and in said blood return port [[32]].

32. (withdrawn - currently amended) A multi lumen catheter [[(C)]] with balloon comprising:

a base end portion [[(51)]];

a flexible tubular main body [[(52)]] extending from the base end portion [[(51)]] to a front end portion;

a front tip [[(53)]] having an outer shape tapered toward the front end which is provided at a front end of the tubular main body [[(52)]];

a balloon [[(12)]] provided on outer side of the tubular main body [[(52)]] at a portion close to the front tip [[(53)]] but on the base end portion [[(51)]] side of the front tip [[(53)]], and

having an outer diameter, when it is deflated, smaller than a maximum outer diameter of the front tip [(43)];

a blood return port [(81)] of a blood return lumen [(13)] and a blood extraction port [(71)] of a blood extraction lumen [(14)] formed in the tubular main body [(52)] on opposite sides of the front tip [(53)]; and

an outer tube [(50)] slidably arranged on the outermost side of said tubular main body [(52)] so as to slide in the lengthwise direction of said body [(52)] between a first open position and a second closed position,

wherein the blood extraction port [(71)], the blood return port [(81)] and said balloon are closed when the end of the outer cylinder [(50)] in said second closed position is in contact with the front tip [(53)].

33. (withdrawn - currently amended) The multi lumen catheter with balloon according to claim 32, wherein said tubular main body [(52)] is so formed that said outer cylinder [(50)] also serves as an outer wall of the blood extraction lumen [(14)].

34. (withdrawn - currently amended) The multi lumen catheter with balloon according to claim 32, wherein said tubular main body

[[52]] has a lumen [[15]] for a guide wire penetrating said tubular main body [[52]] from said base end portion through to the front tip [[53]].

35. (withdrawn - currently amended) The multi lumen catheter with balloon according to claim 32, wherein the blood return lumen [[13]] also serves as a lumen for a guide wire.

36. (withdrawn - currently amended) The multi lumen catheter with balloon according to claim 32, wherein said tubular main body [[52]] is provided with a lumen for flowing a gas or a liquid for inflating and deflating said balloon.